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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/696,879	10/30/2003	Siong Lee Lim	STL11408	9110

27365 7590 08/30/2005

SEAGATE TECHNOLOGY LLC C/O WESTMAN
CHAMPLIN & KELLY, P.A.
SUITE 1400 - INTERNATIONAL CENTRE
900 SECOND AVENUE SOUTH
MINNEAPOLIS, MN 55402-3319

EXAMINER

PHAM, MINH CHAU THI

ART UNIT	PAPER NUMBER
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1724

DATE MAILED: 08/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/696,879

Applicant(s)

LIM ET AL.

Examiner

Minh-Chau T. Pham

Art Unit

1724

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 June 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 and 12-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 and 12-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1-10 and 12-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over any one of Graeve (6,475,270 B1), Ueki et al (6,712,887 B2) and Boroson et al (6,740,145 B2).

Graeve discloses an enclosure system for an electronic assembly, particularly a hard dish drive (see col. 1, lines 8-10) comprising an enclosure having an outer surface and an inner surface, an aperture extending between the inner surface and outer surface of the enclosure wherein the aperture has a larger cross section adjacent the outer surface than adjacent the inner surface (see 120 in Fig. 6a) and a filter disposed within the aperture (32 in Fig. 1) and the filter comprising a desiccant (col. 5, line 64 through col. 6, line 3) (see col. 5, lines 20-64, col. 7, lines 42-60, col. 8, lines 9-16).

Ueki et al discloses an enclosure system (22) for a magnetic storage disk drive system (see col. 1, line 13) comprising an enclosure having an outer surface and an inner surface, an aperture (24) extending between the inner surface and outer surface of the enclosure wherein the aperture has a larger cross section adjacent the outer surface than adjacent the inner surface (see Fig. 7) and a filter (F) disposed within the aperture (col. 11, lines 3-9). Ueki et al further disclose a label adhered to the outer surface of the enclosure and a portion of filter (col. 11, lines 16-37). Boroson et al disclose a highly moisture sensitive electronic device or microelectronic device (see Abstract, col. 1, line 8, line 16 and line 30) (40) for a disk drive comprising an enclosure having an outer

surface and an inner surface, an aperture extending between the inner surface and outer surface of the enclosure wherein the aperture has a larger cross section adjacent the outer surface than adjacent the inner surface (see Fig. 4) and a filter (50) which is desiccant disposed within the aperture. Boroson et al further disclose a seal (60) mounted to the outer surface of the enclosure and a portion of the filter (col. 7, lines 23-40). It would have been obvious to a person having ordinary skill in the art at the time the invention was made to provide a filter system for an electronic disk drive as taught by any one of Graeve, Ueki et al and Boroson et al to provide the best way to control of moisture inside a packaged electronic device which desiccates highly moisture-sensitive electronic devices to prevent premature device failure or premature degradation of device performance.

Response to Amendment

Applicant's arguments filed on June 6, 2005 have been fully considered but they are not persuasive.

Applicant points out that claims 1-22 are pending in the application but only claims 1-18 are addressed. The Examiner respectfully thanks Applicant for the typo mistake and a new Office Action addressing claims 1-10 and 12-22 is transmitted herewith.

Applicant amends independent claims 1 and 12 to include "an enclosure configured to house components of the data storage system" and argues that none of the cited references discloses such a feature. The Examiner respectfully disagrees and points out that: Graeve discloses an enclosure system for an electronic assembly,

particularly a hard disk drive (see col. 1, lines 8-10), Ueki et al discloses an enclosure system (22) for a magnetic storage disk drive system (see col. 1, line 13), and Boroson et al disclose a highly moisture sensitive electronic device or microelectronic device (see Abstract, col. 1, line 8, line 16 and line 30), as claimed. It is clear that all these 3 references address a filter system for a hard disk drive of in Applicant's language "the data storage system".

Graeve discloses an enclosure system for an electronic assembly, particularly a hard disk drive (see col. 1, lines 8-10) comprising an enclosure having an outer surface and an inner surface, an aperture extending between the inner surface and outer surface of the enclosure wherein the aperture has a larger cross section adjacent the outer surface than adjacent the inner surface (see 120 in Fig. 6a) and a filter disposed within the aperture (32 in Fig. 1) and the filter comprising a desiccant (col. 5, line 64 through col. 6, line 3) (see col. 5, lines 20-64, col. 7, lines 42-60, col. 8, lines 9-16). Ueki et al discloses an enclosure system (22) for a magnetic storage disk drive system (see col. 1, line 13) comprising an enclosure having an outer surface and an inner surface, an aperture (24) extending between the inner surface and outer surface of the enclosure wherein the aperture has a larger cross section adjacent the outer surface than adjacent the inner surface (see Fig. 7) and a filter (F) disposed within the aperture (col. 11, lines 3-9). Ueki et al further disclose a label adhered to the outer surface of the enclosure and a portion of filter (col. 11, lines 16-37). Boroson et al disclose a highly moisture sensitive electronic device or microelectronic device (see Abstract, col. 1, line 8, line 16 and line 30) (40) for a disk drive comprising an enclosure having an outer

surface and an inner surface, an aperture extending between the inner surface and outer surface of the enclosure wherein the aperture has a larger cross section adjacent the outer surface than adjacent the inner surface (see Fig. 4) and a filter (50) which is desiccant disposed within the aperture. Boroson et al further disclose a seal (60) mounted to the outer surface of the enclosure and a portion of the filter (col. 7, lines 23-40), as claimed. It would have been obvious to a person having ordinary skill in the art at the time the invention was made to provide a filter system for an electronic disk drive as taught by any one of Graeve, Ueki et al and Boroson et al to provide the best way to control of moisture inside a packaged electronic device which desiccates highly moisture-sensitive electronic devices to prevent premature device failure or premature degradation of device performance.

Applicant's arguments with respect to claims 1-10 and 12-22 have been thoroughly considered but are moot in view of the new ground(s) of rejection, as discussed above.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Minh-Chau T. Pham whose telephone number is (571) 272-1163. The examiner can normally be reached on Mon/Tues/Thur/Fri 7:00 am - 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane Smith can be reached on (571) 272-1166. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 1724

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'Minh-Chau Pham', written in a cursive style.

Minh-Chau Pham
Patent Examiner
Art Unit : 1724
August 26, 2005